



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,062	11/26/2003	Han Xiong Xiao	GXA 002A	8634

7590 10/27/2006  
Gary C. Cohn PLLC  
1147 North Fourth Street  
Philadelphia, PA 19123

EXAMINER
----------

MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/723,062

Applicant(s)

XIAO, HAN XIONG

Examiner

Sanza L. McClendon

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/26/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-19 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/29/04</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1711

**DETAILED ACTION**  
***Election/Restrictions***

1. Claims 1-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention of Groups I and III, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 31, 2006.

Original claims 15-22, which were inadvertently left out of the restriction requirement mailed June 27, 2006, however the examiner agrees with applicant's assessment, so in the interest of compact prosecution claims 15-22 will be added to Group II. Therefore claims 9-22 will be pending while claims 1-8 will be withdrawn.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-10 and 12-19 are rejected under 35 U.S.C. 102(b) as anticipated by Treasurer (5,504,145).

Treasurer et al teaches water-dispersible poly (urethane-urea) compositions. Said composition is prepared by forming a pre-polymer comprising an alcoholized drying oil; a polyisocyanate; a polyalkylene ether polyol and a dihydroxy containing alkaonic acid polyol; neutralizing the pre=polymer; contacting the neutralized pre-polymer with water and a diamine. The polyalkylene ether is an optional component in the composition—see column 3, lines 44-45. The alcoholized drying oil is a reaction product between a drying oil and an alcohol or polyol, wherein the drying oils can be found in column 2, lines 52 to 61. Drying oils, such as dehydrated castor oil and eleosteric acid are disclosed as useful, wherein dehydrated castor oil and eleosteric acid have conjugated double bonds. The eleosteric acid appears to anticipate applicant's tung oil, since it is what imparts the drying properties in tung oil. Said alcohols and polyols can be found in columns 2, lines 62 to the end and column 3, lines 1-5. The diisocyanates can be found in column 3, lines 27-43. The

Art Unit: 1711

dihydroxy alkaonic acid polyol can be found in columns 3-4. The reaction product of the alcoholized drying oil, dihydroxy containing alkaonic acid polyol, and the diisocyanate result in a COOH-containing, NCO-terminated prepolymers. This reaction product appears to anticipate claims 9-10, and 12-14. Once formed the prepolymers is then neutralized with a neutralizing agent in the presence of a hydrophilic solvent (see column 5), wherein the neutralizing agent can be found in column 4, lines 52-64. This results in the NCO-containing prepolymers having pendant salts groups, of which Treasurer refers to as an end-capped polymer salt. After said the neutralizing step said end-capped polymer can be contacted with water to form a water-dispersion. Then said diamine added to react with the isocyanate groups of said end-capped polymer to provide chain extension of the polymer—see column 5, lines 38-50. Treasurer discloses that said method of preparation includes two sequential steps where the prepolymers is formed and neutralized, and then upon neutralization the salt may be contacted with water and diamine either simultaneously or stepwise. This appears to anticipate claim 18. Treasurer et al teaches said water-borne coating can be coated onto hard surfaces and exhibits good chemical resistance, adhesion, abrasion, and high gloss properties. Because said coating is taught to adhere to hard surfaces the limitation of adhesive is deemed met by the teaching of the reference.

4. Claims 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Seiner (3,318,828).

Seiner teaches storage stable isocyanate-modified drying oil a preparation thereof. Said isocyanate-modified drying oils are produced by reacting a drying, semi-drying or non-drying oil or an acid of such oil with a polyol, such as those found in column 2, then reacting this product with a mono-, di, or higher isocyanate compound, such as those found in column 2. Usually a catalyst such as those found in column 2 to column 3 is used in the process. The drying oils include dehydrated castor oil and tung oil, among others—see column 2. Wherein the un-stabilized reaction product appears to anticipate claims 9-10 and 12-14. Seiner et al teaches stabilizing said drying oil-modified isocyanate is accomplished by the addition of water because water is effective for removing essentially all residual isocyanate groups. Seiner et al teaches that there is not critical upper limit to the amount of water that can be added for stabilization—see column 4, lines 50-52. Per examples, see example 1, the stabilized products appear to have free hydroxyl groups thus anticipating claim 11.

Art Unit: 1711

Thus the inventions of claims 9-13 are anticipated by the reference.

### ***Allowable Subject Matter***

5. Claims 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record fails to disclose or render obvious the adhesive compositions of the above listed claims.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,321,419 to Kennedy teaches urethane oils similar to the inventions of claims 9-13. US 3,177,167 to Skreckoski et al teaches similar reaction products, however these differ because they lack free OH or NCO groups.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/723,062

Page 5

Art Unit: 1711

  
Sanza L. McClendon 10/24/06  
Examiner  
Art Unit 1711

SMc